

METHOD OF PURIFYING EXHAUST GAS OF
AN INTERNAL COMBUSTION ENGINE

5

ABSTRACT OF THE DISCLOSURE

10 A NOx occluding and reducing catalyst 20 is provided
in an exhaust gas passage of an engine to occlude the NOx
in the exhaust gas of a lean air-fuel ratio. The engine
is provided with an injector for directly injecting the
fuel into the combustion chamber, and the fuel fed by a
fuel pump into a common rail with pressure is injected.
15 The additive containing a sulfur-solidifying agent that
forms a solid sulfate upon the reaction with sulfur in
the fuel due to combustion, is injected into the common
rail from a tank due to a pump, and is supplied into the
combustion chamber through the injector together with the
20 fuel. When the condition of the atmosphere of the NOx
occluding and reducing catalyst is the one where the NOx
in the exhaust gas is little absorbed, the ECU adjusts
the discharge amount of the pump, and decreases the
amount of the additive injected into the common rail or
25 interrupts the injection. This decreases the consumption
of the sulfur-solidifying agent.